

INTERNATIONAL COOPERATION TREATY

PCT

NOTIFICATION OF ELECTION

(PCT Rule 61.2)

From the INTERNATIONAL BUREAU

To:

Commissioner
US Department of Commerce
United States Patent and Trademark
Office, PCT
2011 South Clark Place Room
CP2/5C24
Arlington, VA 22202
ETATS-UNIS D'AMERIQUE
in its capacity as elected Office

Date of mailing (day/month/year) 01 February 2001 (01.02.01)	
International application No. PCT/US00/05251	Applicant's or agent's file reference 76012-9005
International filing date (day/month/year) 01 March 2000 (01.03.00)	Priority date (day/month/year) 01 June 1999 (01.06.99)
Applicant YOUNGQUIST, Robert, Scott et al	

1. The designated Office is hereby notified of its election made:

☒ in the demand filed with the International Preliminary Examining Authority on:
21 December 2000 (21.12.00)

☐ in a notice effecting later election filed with the International Bureau on:

2. The election ☒ was
☐ was not

made before the expiration of 19 months from the priority date or, where Rule 32 applies, within the time limit under Rule 32.2(b).

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland Facsimile No.: (41-22) 740.14.35	Authorized officer Pascal Piriou Telephone No.: (41-22) 338.83.38
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PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 7586/VB	FOR FURTHER ACTION		see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.
International application No. PCT/US 00/ 05251	International filing date (day/month/year) 01/03/2000	(Earliest) Priority Date (day/month/year) 01/06/1999	
Applicant THE PROCTER & GAMBLE COMPANY et al.			

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 5 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

a. With regard to the language, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

b. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international search was carried out on the basis of the sequence listing :

☐ contained in the international application in written form.

☐ filed together with the international application in computer readable form.

☐ furnished subsequently to this Authority in written form.

☐ furnished subsequently to this Authority in computer readable form.

☐ the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.

☐ the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished

2. ☒ Certain claims were found unsearchable (See Box I).

3. ☐ Unity of invention is lacking (see Box II).

4. With regard to the title,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the abstract,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. The figure of the drawings to be published with the abstract is Figure No. _____

☐ as suggested by the applicant.

☐ because the applicant failed to suggest a figure.

☐ because this figure better characterizes the invention.

☐ None of the figures.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Continuation of Box I.2

The initial phase of the search revealed a very large number of documents relevant to the issue of novelty. So many documents were retrieved that it is impossible to determine which parts of the claim(s) may be said to define subject-matter for which protection might legitimately be sought (Article 6 PCT). For these reasons, a meaningful search over the whole breadth of the claim(s) is impossible. Consequently, the search has been restricted to:

The compounds shown in the description as preferred embodiments on pages 13-15 (table 1) and compound 19 (page 38), compounds 18 and 17 (page 37), compounds 15 and 16 (page 36), compound 14 (page 35), compounds 12 and 13 (page 34), compound 10e (page 32), compounds 8 and 9 (page 30), compounds 4, 7a and 7b (page 29), compounds 5 and 6 (page 28), compound 4 (page 27), compounds 3b and 16 (page 26), compound 2c (page 25).

The applicant's attention is drawn to the fact that claims, or parts of claims, relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure.

PCOS 00/05251

IPC 7 A61P17/14 C07C233/25 C07C233/29 C07D295/08 A61K31/165
A61K31/535 A61K31/40

B. FIELDS SEARCHED

IPC 7 C07C C07D A61K

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 96 25943 A (LIFE MEDICAL SCIENCES INC) 29 August 1996 (1996-08-29) the whole document ---	1-10
X	YOKOYAMA, NAOKATA ET AL: "Synthesis and Structure-Activity Relationships of Oxamic Acid and Acetic Acid Derivatives Related to L-Thyronine" J. MED. CHEM. (1995), 38(4), 695-707 , XP002080908 the whole document ---	1-7
X	EP 0 580 550 A (CIBA GEIGY AG) 26 January 1994 (1994-01-26) the whole document ---	1-7
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☒ Patent family members are listed in annex.

"&" document member of the same patent family

13/06/2000

Bader, K

INTERNATIONAL SEARCH REPORT

International Application No

PC 00/05251

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p>US 5 569 674 A (YOKOYAMA DECEASED NAOKATO ET AL) 29 October 1996 (1996-10-29) the whole document -----</p>	1-7

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/US 00/05251



Patent document cited in search report		Publication date	Patent family member(s)	Publication date
WO 9625943	A	29-08-1996	AU 4990496 A CA 2213481 A EP 0812210 A JP 9010915 A	11-09-1996 29-08-1996 17-12-1997 14-01-1997
EP 0580550	A	26-01-1994	AT 159515 T AU 4208193 A CA 2100817 A DE 69314718 D DE 69314718 T DK 580550 T ES 2108855 T FI 933260 A GR 3025517 T HU 64512 A,B JP 6172275 A NO 932614 A NZ 248181 A US 5401772 A US 5569674 A US 5654468 A ZA 9305196 A	15-11-1997 27-01-1994 22-01-1994 27-11-1997 26-02-1998 02-02-1998 01-01-1998 22-01-1994 27-02-1998 28-01-1994 21-06-1994 24-01-1994 27-11-1995 28-03-1995 29-10-1996 05-08-1997 07-07-1994
US 5569674	A	29-10-1996	US 5401772 A US 5654468 A AT 159515 T AU 4208193 A CA 2100817 A DE 69314718 D DE 69314718 T DK 580550 T EP 0580550 A ES 2108855 T FI 933260 A GR 3025517 T HU 64512 A,B JP 6172275 A NO 932614 A NZ 248181 A ZA 9305196 A	28-03-1995 05-08-1997 15-11-1997 27-01-1994 22-01-1994 27-11-1997 26-02-1998 02-02-1998 26-01-1994 01-01-1998 22-01-1994 27-02-1998 28-01-1994 21-06-1994 24-01-1994 27-11-1995 07-07-1994

REC'D 14 AUG 2001

WIPO

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 92271/9012		FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/US00/05251	International filing date (day/month/year) 01/03/2000	Priority date (day/month/year) 01/06/1999	
International Patent Classification (IPC) or national classification and IPC A61P17/14			
Applicant (THE PROCTER & GAMBLE COMPANY et al.) THE UNIVERSITY OF TEXAS SOUTHWESTERN MEDICAL...			
<p>1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 7 sheets, including this cover sheet.</p> <p><input type="checkbox"/> This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).</p> <p>These annexes consist of a total of sheets.</p>			
<p>3. This report contains indications relating to the following items:</p> <ul style="list-style-type: none">I <input checked="" type="checkbox"/> Basis of the reportII <input type="checkbox"/> PriorityIII <input checked="" type="checkbox"/> Non-establishment of opinion with regard to novelty, inventive step and industrial applicabilityIV <input type="checkbox"/> Lack of unity of inventionV <input checked="" type="checkbox"/> Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statementVI <input type="checkbox"/> Certain documents citedVII <input type="checkbox"/> Certain defects in the international applicationVIII <input checked="" type="checkbox"/> Certain observations on the international application			
Date of submission of the demand 21/12/2000		Date of completion of this report 10.08.2001	
Name and mailing address of the international preliminary examining authority:  European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465		Authorized officer Pa I Soto, R Telephone No. +49 89 2399 7346 	

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No. PCT/US00/05251

I. Basis of the report

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):

Description, pages:

1-46 as originally filed

Claims, No.:

1-10 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
- ☐ the claims, Nos.:
- ☐ the drawings, sheets:

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)):

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No. PCT/US00/05251

(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)

6. Additional observations, if necessary:

III. Non-establishment of opinion with regard to novelty, inventive step and industrial applicability

1. The questions whether the claimed invention appears to be novel, to involve an inventive step (to be non-obvious), or to be industrially applicable have not been examined in respect of:

- ☐ the entire international application.
- ☒ claims Nos. 1-10 (in part); and 8-10 (industrial applicability).

because:

- ☒ the said international application, or the said claims Nos. 8-10 (industrial applicability) relate to the following subject matter which does not require an international preliminary examination (*specify*):
see separate sheet
 - ☐ the description, claims or drawings (*indicate particular elements below*) or said claims Nos. are so unclear that no meaningful opinion could be formed (*specify*):
 - ☐ the claims, or said claims Nos. are so inadequately supported by the description that no meaningful opinion could be formed.
 - ☒ no international search report has been established for the said claims Nos. 1-10 (in part).
2. A meaningful international preliminary examination cannot be carried out due to the failure of the nucleotide and/or amino acid sequence listing to comply with the standard provided for in Annex C of the Administrative Instructions:
- ☐ the written form has not been furnished or does not comply with the standard.
 - ☐ the computer readable form has not been furnished or does not comply with the standard.

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims 1-10
	No: Claims
Inventive step (IS)	Yes: Claims
	No: Claims 1-10
Industrial applicability (IA)	Yes: Claims 1-7; for 8-10 see separate sheet

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

International application No. PCT/US00/05251

No: Claims

2. Citations and explanations
see separate sheet

VIII. Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:
see separate sheet

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT - SEPARATE SHEET**

International application No. PCT/US00/05251

1. Reference is made to the document WO9625943, cited in the International Search Report, as **D1**.

Re Item III

Non-establishment of opinion with regard to novelty, inventive step and industrial applicability

2. **Claims 8-10** relate to subject-matter considered by this Authority to be covered by the provisions of Rule 67.1(iv) PCT. Consequently, no opinion will be formulated with respect to the industrial applicability of the subject-matter of these claims (Article 34(4)(a)(i) PCT).
3. *No International Preliminary Examination will be carried out in respect of subject-matter which is not covered by the International Search Report (see Rule 66.1(e) PCT), i.e. in respect of compounds different from:*
 - (a) those shown in the description as preferred embodiments on pages 13-15 (table I), and
 - (b) compound 19 (page 38), compounds 18 and 17 (page 37), compounds 15 and 16 (page 36), compound 14 (page 35), compounds 12 and 13 (page 34), compound 10e (page 32), compounds 8 and 9 (page 30), compounds 4, 7a and 7b (page 29), compounds 5 and 6 (page 28), compound 4 (page 27), compounds 3b and 1b (page 26) and compound 2c (page 25).

Re Item V

Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

4. The present application relates, according to **claim 1**, to certain compounds structurally related to triiodothyronine or thyroxine and, according to **claim 7**, to a composition characterised by one of said compounds and a carrier. **Claim 8** is directed to a method of treating hair loss comprising administering to a mammal a composition according to claim 7.

5. The compounds mentioned in paragraphs 3(a) and (b) above meet the requirements of the PCT with respect to novelty (Art. 33 (2)), because they are not disclosed in any of the documents cited in the International Search Report. Therefore, compositions comprising said compounds and a carrier (claim 7), as well as a method of treating hair loss comprising administering said compositions (claims 8-10) are also new.
6. However, the compounds mentioned in paragraph 3(a) and (b), as well as the compositions of claim 7 and the methods of claim 8 in which concerns said compounds, do not involve an inventive step (Art. 33(3) PCT) for the following reasons.

D1 (see page 1), which appears to represent the closest prior art, discloses a method of treating hair loss comprising the administration of formulations containing triiodothyronine. In the light of **D1**, the **problem** to be solved by the present application is regarded in the provision of compounds for use in the treatment of hair loss and which do not present the disadvantage of inducing cardiotoxicity.

The **solution** proposed by the present application, in which concerns the compounds mentioned under paragraph 3(a) and (b), does not appear to be suggested or rendered obvious by any document or combination of documents of the prior art. However, no experimental data are provided in the application evidencing that said compounds solve the problem posed. As far as it is not credible that the claimed subject-matter solves the technical *no inventive step can be acknowledged*.

- 7.1. For the assessment of the present claims 8-10 on the question whether they are industrially applicable, no unified criteria exist in the PCT Contracting States. The patentability can also be dependent upon the formulation of the claims. The EPO, for example, does not recognize as industrially applicable the subject-matter of claims to the use of a compound in medical treatment, but may allow, however, claims to a known compound for first use in medical treatment and the use of such a compound for the manufacture of a medicament for a new medical treatment.
- 7.2. Present claims 1-7 meet the criterion set forth in Article 33(4) PCT because their subject-matter is susceptible of industrial application.

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT - SEPARATE SHEET**

International application No. PCT/US00/05251

Re Item VIII

Certain observations on the international application

8. Present **claim 4** does not meet the requirements of Art. 6 PCT because the terms "lower alkyl" and "lower alkenyl" do not have any recognised meaning in the art and render the scope of the claim unclear. The definition given in the last two lines on page 6 should be included in the formulation of the claim.